

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application No. 10/576,407

Confirmation No. 5417

Applicant: Karsten HOFFHAUS et al.

Filed: June 19, 2007

TC/AU: 3754

Examiner: Patrick F. Brinson

Docket No.: 811844

Customer No.: 95402

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION FROM REQUIREMENT FOR RESTRICTION UNDER 37 CFR 1.144**

Dear Sir:

In response to the making Final of a requirement for restriction in the Office Action mailed December 8, 2010, Applicants hereby submit a petition from requirement for restriction under 37 C.F.R. 1.144.

This petition contains the following as required by 37 C.F.R. 1.181:

- I. Statement of Facts Involved;
- II. Points to be Reviewed; and
- III. Action Requested.

## I. STATEMENT OF FACTS INVOLVED

The Office Action mailed September 28, 2010 (copy attached hereto as Exhibit A) required restriction under 35 USC 121 and 372. The Office Action required Applicants to elect a single invention from the following:

Group I, claims 1-24, drawn to a pipe segment; and

Group II, claims 25-29, drawn to a process for transporting a hot particulate material in a carrier gas.

For convenience, a copy of the current claims is attached hereto as Exhibit B.

On October 27, 2010, Applicants filed a response (copy attached hereto as Exhibit C) to the September 28, 2010 Office Action electing, with traverse, the invention of Group I (claims 1-24).

The requirement for restriction was made Final in the Office Action mailed December 8, 2010 (copy attached hereto as Exhibit D).

Applicants hereby petition the Director to review the requirement for restriction under 37 CFR 1.144 and MPEP 818.03(c).

## II. POINTS TO BE REVIEWED

### 1. Groups I and II relate to a single general inventive concept under PCT Rule 13.1

It is respectfully submitted that the claims of Groups I and II relate to a single general inventive concept under PCT Rule 13.1 because these claims include the same corresponding technical feature. Contrary to the assertions set forth in the requirement for restriction in the September 28, 2010 Office Action, it is respectfully submitted that the claims of Group II do require the particular structure recited in the invention of Group I. See September 28, 2010 Office Action at page 2, section 2. The Group II claims 25-29 depend ultimately from independent claim 1 via intervening dependent claim 23. Claim 23 recites a transfer line including "a plurality of pipe

segments according to claim 1." The pipe segment of claim 1 includes the particular structure, i.e., the outer pipe section, the inner pipe section and the support means, set forth in the September 28, 2010 Office Action at page 2, section 2. Because dependent claims 25-29 properly depend ultimately from claim 1, claims 25-29 necessarily include the limitations of claim 1 and therefore do require the particular structure recited in the invention of Group I.

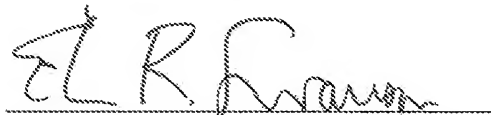
Therefore, it is respectfully submitted that the claims of Groups I and II have unity of invention and the requirement for restriction is improper.

### III. ACTION REQUESTED

For the above reasons, reconsideration and withdrawal of the requirement for restriction relative to Groups I and II, and examination of each of claims 1-29 presently pending in this application, is respectfully requested.

No fees are believed to be due with the filing of this response. In the event of a fee discrepancy, please charge any fees due in connection with this filing to Deposit Account No. 12-1216, referencing docket No. 811844.

Respectfully submitted,



Erik R. Swanson, Reg. No. 40,833  
LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Stetson Avenue  
Chicago, Illinois 60601-6731  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

Date: February 8, 2011

Attachments: Exhibit A: Office Action of September 28, 2010  
Exhibit B: Current claims filed April 19, 2006  
Exhibit C: Applicants' response of October 27, 2010  
Exhibit D: Office Action of December 8, 2010

EXHIBIT A



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1459  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,407	06/19/2007	Karsten Hoffhaus	20941/0211443-US0	5417

95402 7590 09/28/2010  
LEYDIG, VOIT AND MAYER  
TWO PRUDENTIAL PLAZA, SUITE 4900  
180 NORTH STETSON AVENUE  
CHICAGO, IL 60601

EXAMINER
----------

BRINSON, PATRICK F

ART UNIT	PAPER NUMBER
----------	--------------

3754

MAIL DATE	DELIVERY MODE
-----------	---------------

09/28/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-24, drawn to a pipe segment.

Group II, claim(s) 25-29, drawn to a process for transporting a hot particulate material in a carrier gas.

Though claims 25-29 are dependent on independent claim 1, it should be noted that the inventions are distinct and that restriction is proper, and in the event that the group containing the dependent claim is elected, the claim must be rewritten in proper independent form for further prosecution.

2. The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The invention of Group II does not require the particular structure recited in the invention of Group I, including providing an outer pipe section, an inner pipe section, support means supporting the inner pipe section so that the inner pipe section can

expand axially relative to the outer pipe section, as required by the invention of Group I.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention or species.

Should applicant traverse on the ground that the inventions have unity of invention (37 CFR 1.475(a)), applicant must provide reasons in support thereof. Applicant may submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. Where such evidence or admission is provided by applicant, if the examiner finds one

of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kevin P. Shaver** can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick F. Brinson/  
Primary Examiner, Art Unit 3754

P. F. Brinson  
September 24, 2010

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A pipe segment [[[22)]] for transporting a hot particulate material, ~~such as hot iron ore fines,~~ in a carrier gas in a transfer line, which said pipe segment [[[22)]] includes:

- (a) an outer pipe section [[[2)]]; and
- (b) an inner pipe section [[[4)]] defining a passageway [[[6)]] for a hot particulate material and a carrier gas, the inner pipe section [[[4)]] being positioned within the outer pipe section [[[2)]], and the inner pipe section [[[4)]] being formed from or having an inner lining of an abrasion resistant material; and
- (c) a support means supporting the inner pipe section [[[4)]] in relation to the outer pipe section [[[2)]] so that the inner pipe section [[[4)]] can expand axially relative to the outer pipe section [[[2)]] in response to temperature changes in the material being transported in the pipe segment [[[22)]], the support means including a first support means located at one end of the pipe segment [[[22)]], the first support means including a support member that can receive an end of an inner pipe section [[[4a)]] of an adjacent pipe segment [[[22a)]] when the adjacent pipe segment [[[22a)]] is positioned in use in end to end relationship with the said pipe segment [[[22)]] and can allow axial expansion of that inner pipe section [[[4a)]] relative to the outer pipe section of the said adjacent pipe segment [[[22a)]] in response to temperature changes in the material being transported in the said adjacent pipe segment [[[22a)]].

2. (Currently Amended) A pipe segment according to claim 1, ~~characterized in that~~ wherein the support member encloses and extends axially

from one end of the inner pipe section [(4)] of the said pipe segment [(22)] and can receive and enclose the end of the inner pipe section [(4a)] of the adjacent pipe segment [(22a)] when the said adjacent pipe segment [(22a)] is positioned in use in end to end relationship with the said pipe segment [(22)] and can allow axial expansion of at least that inner pipe section [(4)] while the ends remain enclosed within the support member.

3. (Currently Amended) [[A]]The pipe segment according to claim 1 ~~or 2, characterized in that~~ wherein the support member forms a seal with the ends of the inner pipe sections [(4, 4a)] of the said pipe segment [(22)] and the said adjacent pipe segment [(22)].

4. (Currently Amended) [[A]]The pipe segment according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the support member includes an inwardly facing cylindrical surface for contacting the outer surfaces of the ends of the inner pipe sections [(4, 4a)] of the said pipe segment [(22)] and the said adjacent pipe segment [(22a)].

5. (Currently Amended) [[A]]The pipe segment according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the support member is in the form of a sleeve [(8)] having the inwardly facing cylindrical surface.

6. (Currently Amended) [[A]]The pipe segment according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the support member is directly connected only to the outer pipe section [(2)] of the said pipe segment [(22)].

7. (Currently Amended) [[A]]The pipe segment according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the support

member is directly connected to both the outer pipe section ~~[[ (2) ]]~~ and the inner pipe section ~~[[ (4) ]]~~ so that the end of the inner pipe section ~~[[ (4) ]]~~, but not the remainder of the inner pipe section ~~[[ (4) ]]~~, is constrained from axial expansion relative to the outer pipe section at that end of the pipe segment ~~[[ (22) ]]~~.

8. (Currently Amended) ~~[[A]]~~The pipe segment according to ~~any of the preceding claims, characterized in that claim 1, wherein~~ the first support means also supports the inner pipe section ~~[[ (4) ]]~~ in relation to the outer pipe section ~~[[ (2) ]]~~.

9. (Currently Amended) ~~[[A]]~~The pipe segment according to ~~any of the preceding claims, characterized in that claim 1, wherein~~ the first support means defines a barrier to movement of gas axially along the space between the inner and outer pipe sections ~~[[ (4, 2) ]]~~ of the pipe segment ~~[[ (22) ]]~~.

10. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 9, ~~characterized in that wherein~~ the first support means includes a frusto-conical barrier member ~~[[ (10) ]]~~ having a larger diameter end that is welded or otherwise connected to the outer pipe section ~~[[ (2) ]]~~ of the said pipe segment ~~[[ (22) ]]~~ and a smaller diameter end that is welded or otherwise connected to the support member.

11. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 10, ~~characterized in that wherein~~ the frusto-conical barrier member ~~[[ (10) ]]~~ is arranged so that the larger diameter end is located at the end of the outer pipe section ~~[[ (2) ]]~~ and the smaller diameter end is located inwardly of the end of the inner pipe segment ~~[[ (4) ]]~~.

12. (Currently Amended) ~~[[A]]~~The pipe segment according to ~~any of the preceding claims, characterized in that claim 1, wherein~~ the support

means includes a second support means positioned at a location along the length of the pipe segment ~~[[22]]~~ between the ends of the pipe segment ~~[[22]]~~ and it supports the inner pipe section ~~[[4]]~~ in relation to the outer pipe section ~~[[4]]~~ for axial expansion relative to the outer pipe section ~~[[2]]~~.

13. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 12, ~~characterized in that wherein~~ the second support means also supports the inner pipe section ~~[[4]]~~ in relation to the outer pipe section ~~[[2]]~~ so that the inner pipe section ~~[[4]]~~ can expand radially relative to the outer pipe section ~~[[2]]~~.

14. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 12 or 13, ~~characterized in that , wherein~~ the second support means is welded or otherwise connected to the outer pipe section ~~[[2]]~~ and the inner pipe section ~~[[4]]~~.

15. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 12 or 13, ~~characterized in that , wherein~~ the second support means is welded or otherwise connected to the outer pipe section ~~[[2]]~~ only.

16. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 12 or 13, ~~characterized in that , wherein~~ the second support means is welded or otherwise connected to the inner pipe section ~~[[4]]~~ only.

17. (Currently Amended) ~~[[A]]~~The pipe segment according to ~~any of claims 12 to 16, characterized in that claim 12, wherein~~ the second support means functions as a spring that provides a resistance to radial expansion of the inner pipe section relative to the outer pipe section.

18. (Currently Amended) ~~[[A]]~~The pipe segment according to ~~any of claims 12 to 16, characterized in that claim 12, wherein~~ the second support means is in the form of a plurality of rods ~~[[14]]~~, each of which is bent so as to

function as a spring, that are positioned at spaced intervals around the circumference of the inner and outer pipe sections ~~[[4, 2]]~~ at a location along the length of the pipe segment ~~[[22]]~~.

19. (Currently Amended) ~~[[A]]~~The pipe segment according to any of claims 12 to 16, ~~characterized in that~~ claim 12, wherein the abrasion resistant material of the inner pipe section ~~[[4]]~~ is a cast iron.

20. (Currently Amended) ~~[[A]]~~The pipe segment according to claim 19, ~~characterized in that~~ wherein the inner pipe section ~~[[4]]~~ is made of an wear-resistant and/or abrasion resistant material, ~~e.g. cast iron.~~

21. (Currently Amended) ~~[[A]]~~The pipe segment according to any of claims 12 to 16, ~~characterized in that~~ claim 12, wherein the outer pipe section ~~[[2]]~~ is formed from a steel.

22. (Currently Amended) ~~[[A]]~~The pipe segment according to any of claims 12 to 16, ~~characterized in that~~ claim 12, wherein the pipe segment ~~[[22]]~~ further includes thermal insulation ~~(36, 38, 42, 46)~~ in the space between the inner and outer pipe sections ~~[[4, 2]]~~.

23. (Currently Amended) A transfer line for transporting hot particulate material, ~~such as iron ore fines,~~ in a carrier gas, which transfer line includes a plurality of pipe segments ~~[[22]]~~ according to ~~any of claims 1 to 22~~ claim 1.

24. (Currently Amended) ~~[[A]]~~The transfer line according to claim 23, ~~characterized in that~~ wherein the plurality of pipe segments ~~[[22]]~~ are positioned in an end to end relationship with the ends of adjacent outer pipe sections ~~[[22a]]~~ welded or otherwise connected together, and the end of one of each pair of

adjacent inner pipe sections ~~[[ (4, 4a) ]]~~ extending into and engaging the support member of the other of the pair of adjacent inner pipe sections ~~[[ (4, 4a) ]]~~.

25. (Currently Amended) A process for transporting a hot particulate material in a carrier gas in a direct smelting plant for producing molten metal from a metalliferous feed material, ~~in particular comprising, transporting~~ between a pretreatment unit and solid delivery means in the form of lances ~~[[for]]~~, injecting the material into a direct smelting vessel, ~~characterized in that and wherein~~ the material is transported in at least one transfer line according to claim 23 ~~[[or 24]]~~.

26. (Currently Amended) ~~[[A]]~~The process according to claim 25, ~~characterized in that wherein~~ the hot particulate material is iron ore fines with a reduction grade between 0 and 100% ~~and preferably a reduction grade between 8 and 95%.~~

27. (Currently Amended) ~~[[A]]~~The process according to claim 25 ~~[[or 26]]~~, ~~characterized in that wherein~~ the hot particulate material is at a temperature between 200 and 850°C ~~and preferably between 300 and 850°C.~~

28. (Currently Amended) ~~[[A]]~~The process according to ~~any of claims 25 to 27, characterized in that claim 25, wherein~~ the carrier gas is at least substantially N<sub>2</sub>.

29. (Currently Amended) ~~[[A]]~~The process according to ~~any of claims 25 to 28, characterized in that claim 25, wherein~~ the hot particulate material ~~is ore fines~~ are transported along the transfer line at a minimum velocity of at least 19 m/s by the carrier gas, and ~~[[are]]~~is injected into a direct smelting vessel with the carrier gas having a lance tip velocity in the range of 70 — 120 m/s.

# EXHIBIT C

FORM PTO-1083

PATENT  
Attorney Docket No. 811844  
Date: October 27, 2010In re Application of: Karsten HOFFHAUS et al.  
Application No. 10/576,407  
Confirmation No. 5417  
Filed: June 19, 2007Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith is a Response to Restriction Requirement in the subject application.

- ☐ Small entity status is claimed for this application under 37 CFR 1.27.
- ☒ Petition for an extension of time for the period noted below, as well as for any additional period necessary to render the present submission timely. Please charge Deposit Account No. 12-1216 for the appropriate petition fee.
- ☐ Other:
- ☒ Please charge Deposit Account No. 12-1216 in the total amount indicated below.


					SMALL ENTITY		OTHER THAN A SMALL ENTITY			
TIME EXTENSION PETITION FEE			none		\$ 0.00		\$ 0.00			
subtract time extension fee previously paid			none		(\$ 0.00)		(\$ 0.00)			
CLAIM FEE		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	EXTRA CLAIMS PRESENT	RATE	ADD'L CLAIM FEE		RATE	ADD'L CLAIM FEE
TOTAL			MINUS		= 0	x 26 =	\$		x 52 =	\$0.00
INDEPENDENT			MINUS		= 0	x 110 =	\$		x 220 =	\$0.00
<input type="checkbox"/>	FIRST PRESENTATION OF MULTIPLE CLAIM					+ 195 =	\$		+ 390 =	\$0.00
OTHER FEES AS DESCRIBED:						\$		\$0.00		
TOTAL AMOUNT TO BE CHARGED TO DEPOSIT ACCOUNT						TOTAL	\$		TOTAL	\$0.00

- ☒ The Commissioner is hereby authorized to charge any deficiencies in the following fees associated with this communication or credit any overpayment to Deposit Account No. 12-1216.
- ☒ Any filing fees under 37 CFR 1.16 for the presentation of extra claims.
- ☒ Any patent application processing fees under 37 CFR 1.17

Respectfully submitted,

LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Statton Avenue  
Chicago, Illinois 60601-6731  
(312) 616-6600 (telephone)  
(312) 616-6700 (facsimile)

LEYDIG, VOIT &amp; MAYER, LTD.

By   
Erik R. Swanson, Reg. No. 40,833



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application No. 10/576,407

Confirmation No. 5417

Applicant: Karsten HOFFHAUS et al.

Filed: June 19, 2007

TC/AU: 3754

Examiner: Patrick F. Brinson

Docket No.: 811844

Customer No.: 95402

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

RESPONSE TO RESTRICTION REQUIREMENT

Dear Sir:

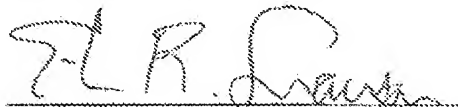
In response to the restriction requirement set forth in the Office Action mailed September 28, 2010, Applicants hereby elect, with traverse, the invention of Group I (claims 1-24), drawn to a pipe segment.

The restriction requirement is respectfully traversed. The Office Action has required election between Group I (claims 1-24) and Group II (claims 25-29). It is respectfully submitted that the claims of Groups I and II relate to a single general inventive concept under PCT Rule 13.1 because these claims include the same corresponding technical feature. Contrary to the Office Action's assertion, it is respectfully submitted that the claims of Group II do require the particular structure recited in the invention of Group I. See Office Action at page 2, section 2. The Group II claims 25-29 depend ultimately from independent claim 1 via intervening dependent claim 23.

Claim 23 recites a transfer line including "a plurality of pipe segments according to claim 1." The pipe segment of claim 1 includes the particular structure, i.e., the outer pipe section, the inner pipe section and the support means, set forth in the Office Action at page 2, section 2. Because dependent claims 25-29 properly depend ultimately from claim 1, claims 25-29 necessarily include the limitations of claim 1 and therefore do require the particular structure recited in the invention of Group I. Therefore, it is respectfully submitted that the claims of Groups I and II have unity of invention and the restriction requirement is improper.

For the above reasons, reconsideration and withdrawal of the restriction requirement relative to Groups I and II, and examination of each of claims 1-29 presently pending in this application, is respectfully requested.

Respectfully submitted,



Erik R. Swanson, Reg. No. 40,833  
LEYDIG, VOIT & MAYER, LTD.  
Two Prudential Plaza, Suite 4900  
180 North Stetson Avenue  
Chicago, Illinois 60601-6731  
(312) 616-5600 (telephone)  
(312) 616-5700 (facsimile)

Date: October 27, 2010

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	8710477
<b>Application Number:</b>	10576407
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	5417
<b>Title of Invention:</b>	Pipe Segment for a Transfer Line for Transporting Hot Particulate Material
<b>First Named Inventor/Applicant Name:</b>	Karsten Hoffhaus
<b>Customer Number:</b>	95402
<b>Filer:</b>	Erik Robert Swanson/Sabine Glock
<b>Filer Authorized By:</b>	Erik Robert Swanson
<b>Attorney Docket Number:</b>	20941/0211443-USO
<b>Receipt Date:</b>	27-OCT-2010
<b>Filing Date:</b>	19-JUN-2007
<b>Time Stamp:</b>	11:31:47
<b>Application Type:</b>	U.S. National Stage under 35 USC 371

### Payment information:

Submitted with Payment		no			
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	Transmittal-RRR.pdf	376471 c041b54c4cfe6a2d88c15d1891e9660c015b	no	1
Warnings:					
Information:					

2	Response to Election / Restriction Filed	RRR.pdf	483977	no	2
			af3c3364e522535525b97218ee5a049b7b297b9		
<b>Warnings:</b>					
<b>Information:</b>					
Total Files Size (in bytes):				860448	
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u><b>New Applications Under 35 U.S.C. 111</b></u>          If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u><b>National Stage of an International Application under 35 U.S.C. 371</b></u>          If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u><b>New International Application Filed with the USPTO as a Receiving Office</b></u>          If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

EXHIBIT D



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,497	06/19/2007	Karsten Hoffhaus	20941/0211443-US0	5417

95402 7590 12/08/2010  
 LEYDIG, VOIT AND MAYER  
 TWO PRUDENTIAL PLAZA, SUITE 4900  
 180 NORTH STETSON AVENUE  
 CHICAGO, IL 60601

EXAMINER
BRINSON, PATRICK F

ART UNIT	PAPER NUMBER
3754	

MAIL DATE	DELIVERY MODE
12/08/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/576,407	Applicant(s) HOFFHAUS ET AL.	
	Examiner Patrick F. Brinson	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b)

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 25-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 9, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 10-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date _____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/19/06</u>   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Group I in the reply filed on 27 October 2010 is acknowledged. The traversal is on the ground(s) that the groups relate to a single general inventive concept. This is not found persuasive because the process claims are drawn more to the material transported through the pipeline than the pipeline itself.

The requirement is still deemed proper and is therefore made FINAL.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8, 9, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 4,084,842 to **Stonitsch et al.**

The patent to **Stonitsch et al.** discloses a conduit system with expansion coupling comprising an outer pipe section (14), an inner pipe section (12) defining a passageway for transporting a material or gas, the inner pipe section being positioned within the outer pipe section and the inner pipe section formed of an abrasion

resistant material. Also disclosed is a support means supporting the inner pipe section in relation to the outer pipe section so that the inner pipe section can expand axially relative to the outer pipe in response to temperature changes in the material being transported in the pipe segment. The support means includes a first support means located at one end of the pipe segment (12), with the first support means including a support member (17) that can receive an end of the inner pipe section of an adjacent pipe segment (15) when the adjacent pipe segment is positioned in use in end to end relationship with the pipe segment and can allow expansion of that inner pipe section relative to the outer pipe section of the adjacent pipe segment in response to temperature changes in the material being transported in the adjacent pipe segment, as recited in claim 1. The support member encloses and extends axially from one end of the pipe section of the pipe segment (12) and can receive and enclose the end of the inner pipe section of the adjacent pipe segment when the adjacent pipe segment is positioned in an end to end relationship, as recited in claim 2. The support member (17) includes a sealing ring (20) which forms a seal with the ends of the inner pipe sections, as recited in claim 3. The support member (17) is in the form of a sleeve having an inwardly facing cylindrical surface for contacting the outer surfaces of the ends of the inner pipe sections, as recited in claims 4 and 5. The support means includes ring (23) that also supports the inner pipe section in relation to the outer pipe section, as recited in claim 8 and provides a barrier to movement of gas axially along



the space between inner and outer pipe sections of pipe segments, as recited in claims 8 and 9. The transfer line includes a plurality of pipe segments, as recited in claim 23, with the plurality of pipe segments being positioned in an end to end relationship with the ends of adjacent outer pipe sections being connected together and the end of each pair of adjacent inner pipe sections extending into and engaging the support member of the other of the pair of adjacent inner pipe sections, as recited in claim 24.

**Stonitsch et al.** discloses the recited structure, but does not specifically disclose the pipeline transporting hot particulate material, however it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

*Allowable Subject Matter*

3. Claims 6, 7 and 10-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The recited references are pertinent to Applicant's invention in disclosing pipelines including inner pipelines that may axially expand.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kevin P. Shaver** can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the

Application/Control Number: 10/576,407  
Art Unit: 3754

Page 6

automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick F. Brinson/  
Primary Examiner, Art Unit 3754

P. F. Brinson  
December 6, 2010

**Notice of References Cited**Application/Control No.  
10/576,407Applicant(s)/Patent Under  
Reexamination  
HOFFHAUS ET AL.Examiner  
Patrick F. BrinsonArt Unit  
3754

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-3,885,145	02-1975	McKay et al.	138/113
*	B	US-6,231,087	05-2001	Ziu, Christopher G.	285/123.16
*	C	US-6,086,114	07-2000	Ziu, Christopher G.	285/123.16
*	D	US-5,901,753	05-1999	Ziu, Christopher G.	138/113
*	E	US-4,363,504	12-1982	De Feo et al.	285/47
*	F	US-4,219,224	08-1980	Hanley, Bernard C.	285/47
*	G	US-4,221,405	09-1980	Stonitsch et al.	285/53
*	H	US-3,563,572	02-1971	French, David W.	285/47
*	I	US-4,084,842	04-1978	Stonitsch et al.	285/47
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.